

## The first record of genus *Pax* (Araneae: Zodariidae) in Turkey

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### Abstract

The spider species *Pax islamita* (Simon, 1873) was found in Turkey for the first time. This represents a new record of both the species and genus *Pax* Levy, 1990 from Turkey. Its description, characteristic features, drawings and photographs of genitalia and general habitus of both sexes are presented.

**Keywords:** Araneae, Zodariidae, Turkey.

### Introduction

Family Zodariidae includes small to large araneomorph spiders with an enormous variation of shapes. They are ecribellate entelegyne spiders. They are diagnosed by having three tarsal claws with teeth on paired tarsal claws implanted on lateral side facing opposing claw, six or eight eyes, very short cheliceral fangs, long anterior lateral spinnerets, reduced posterior spinnerets and by the absence of serrula (Jocqué & Dippenaar-Schoeman, 2006).

Family Zodariidae is a big spider family which includes 868 species in 74 genera with worldwide distribution (Platnick, 2008). Although this family is represented in the eastern Mediterranean region, Turkish zodariids are poorly known. Only 33 species of 3 genera have so far recorded in the country (Topçu *et al.*, 2005).

Genus *Pax* [Type-species. *Habronestes libani* Simon, 1873, from Lebanon] was described by Levy (1990) to include two new species from Israel [*P. engediensis* and *P. palmonii*] in addition to three Levantine species transferred from *Habronestes* [*P. islamita* (Simon, 1873) and *P. libani* (Simon, 1873)] and *Lachesis* [*P. meadi* (O. P.-Cambridge, 1872)]. It is considered a senior synonym of *Storamia* Jocqué, 1991 (Platnick, 2008). *Pax* is very near to genus *Mallinella* Strand, 1906 of tropical Africa and south East Asia.

This work adds *Pax islamita* (Simon, 1873) as a new record of the species and genus to the zodariid spider fauna of Turkey.

## Material and Methods

This study is based on specimens collected from southern Turkey and preserved in 70% ethanol. The identification was made by means of a SZX61 Olympus stereomicroscope and according to Levy (1990). Examined specimens are deposited in the Arachnology Museum of Niğde University (NUAM). All measurements are in millimetres.

## Results

### *Pax islamita* (Simon, 1873) (Figs. 1-11)

**Material examined:** TURKEY: **Kayseri province**, Yahyalı district, surrounding of Kapuzbaşı waterfalls, (37°46'N, 35°23'E), 1270m, under stones, 26.V.2007 (3♂♂, 3♀♀). **Osmaniye Province**, Kadirli district, Karatepe National Park, Çürüklere village, (37°15'N, 36°13'E), 297m, under stone and on soil, 24.V.2007 (2♂♂); Hasanbeyli district, (37°09'N, 36°27'E), 661m, under stone, 02.V.2007 (1♂); Toprakkale district, (37°03'N, 36°08'E), 01.V.2007 (1♂, 1♀). **Kilis Province**, Sabuncu village (36°50'N, 36°53'E), 521m, under stone, 02.V.2007 (1♀). **Hatay Province**, Dörtyol district, Karakese village, (36°50'N, 36°16'E), 520m, 13.V.2008 (2♂♂, 2♀♀). **Ankara Province**, Sincan district (39°58'N, 32°35'E), 855m, 21.VIII.2007 (1♂, 1♀).

**Description:** Measurements. 2♂♂ (Fig. 1): Total length 7.5-8.0. Carapace length 3.8-4.0, width 3.0-3.2. Abdomen length 3.7-4.0, width 2.7-2.9; 2♀♀ (Fig. 2): Total length 9.0-10.5. Carapace length 3.7-4.0, width 2.4-2.8. Abdomen length 5.3-6.5, width 3.2-4.0. Prosoma rectangular shaped, slightly narrowed in front, slightly elevated in the middle, shiny blackish-brown with no patterns. Male carapace slightly enlarged and darkened than female. Fovea is narrow and distinct. Anterior and posterior eye rows relatively procurved; all eyes are nearly equal and relatively equidistant. Chelicerae have the same colour of carapace; with small fangs. Endites and labium lighter than carapace. Sternum triangular shaped; dark brown with densely covered by black hairs. Legs reddish-yellow; femora dark brown. Abdomen dark, oval shaped with large dorsal scutum in male. Male palp (Figs. 3-5, 8-9) and epigyne (Figs. 6-7, 10-11) resemble description of Levy (1990).

**Comment:** Adult males and females of *Pax islamita* were collected in May, except those from Sincan district, Ankara Province, in August.

All species of genus *Pax* are known from the Middle East. *P. meadi* (O. P.-Cambridge, 1872) is only known from the type locality, Jericho, Palestine. *P. libani* (Simon, 1873) is recorded from Lebanon and Israel (7 localities, Levy, 1990). Adult males and females were taken in the winter and spring, November to March. *P. palmonii* Levy, 1990 and *P. engediensis* Levy, 1990 are only known from Israel.

*P. islamita* (Simon, 1873) is recorded from Syria (Damascus), Lebanon (Beirut and near Ba'albek), and Israel (Tiberias, Dan, Mt Carmel, Wadi Natuf in Samaria, En Matta) where an adult male and a female were collected in May and one male was found in August (Levy, 1990). The recording of this species from Turkey widens its distribution to the north and west (Fig. 12).

## Acknowledgments

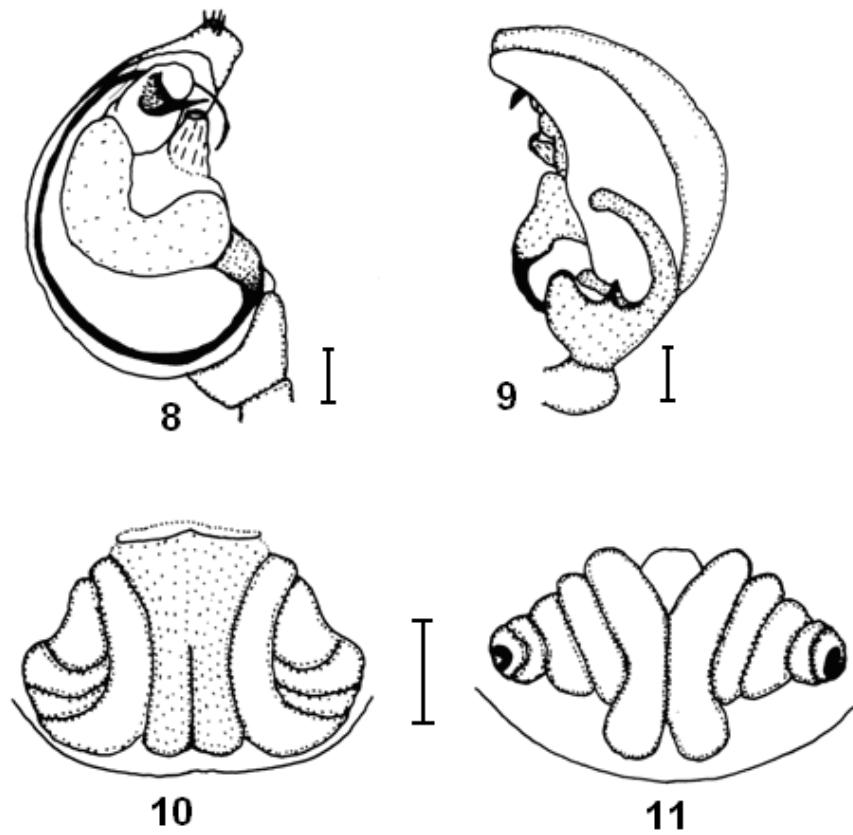
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Figs. 1–7: Photographs of *Pax islamita* (Simon, 1873). 1–2. General habitus. 1. Male. 2. Female. 3–5. Right male palp. 3. Prolateral view. 4. Retrolateral view. 5. Ventral view. 6–7. Female. 6. Epigynum, ventral view. 7. Vulvae, dorsal view.

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Figs. 8–11. Drawings of genitalia of *Pax islamita* (Simon, 1873). 8–9. Left male palp. 8. Ventral view. 9. Retrolateral view. 10–11. Female. 10. Epigynum, ventral view. 11. Vulvae, dorsal view. Scale bars: 0.25 mm.

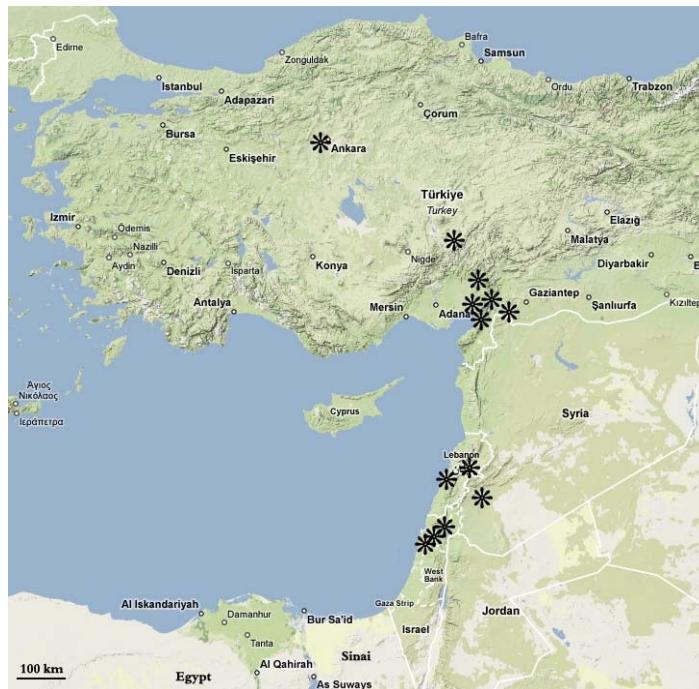


Fig. 12. Distribution map of *Pax islamita* (Simon, 1873) [\*] in the eastern Mediterranean region.